

A NEW SPECIES OF *AMPHINEMURA* (PLECOPTERA: NEMOURIDAE) FROM CHINA¹

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ABSTRACT: *Amphinemura guangdongensis* sp. n., a new species of the family Nemouridae is described from China, and its relationships are discussed on the Chinese species.

KEY WORDS: Plecoptera, Nemouridae, *Amphinemura*, new species, China

The genus *Amphinemura* is distributed in the Holarctic and Oriental regions (Baumann, 1975). It currently contains about 120 species worldwide, including 37 from China. The species of *Amphinemura* from China were studied mainly by Wu (1938, 1962, 1973) and Zhu and Yang (2002, 2003).

The present paper deals with one new species of the genus *Amphinemura* from China. The material studied is deposited in the Insect Collection of China Agricultural University, Beijing, and all of the specimens are preserved in 75 percent alcohol. The morphological terminology generally follows that of Baumann (1975).

Amphinemura guangdongensis Yang, Li and Zhu, NEW SPECIES (Figs. 1-5)

Diagnosis: Epiproct with a pair of large anterolateral spines that curved outward and a sharp apical process extended from its ventral sclerite. Median lobe of paraproct furcated into a slender projection and wide setous hump.

Description: Male: Body length 7.0-8.5 mm; forewing length 9.4-9.6 mm, hindwing length 7.8-8.1 mm.

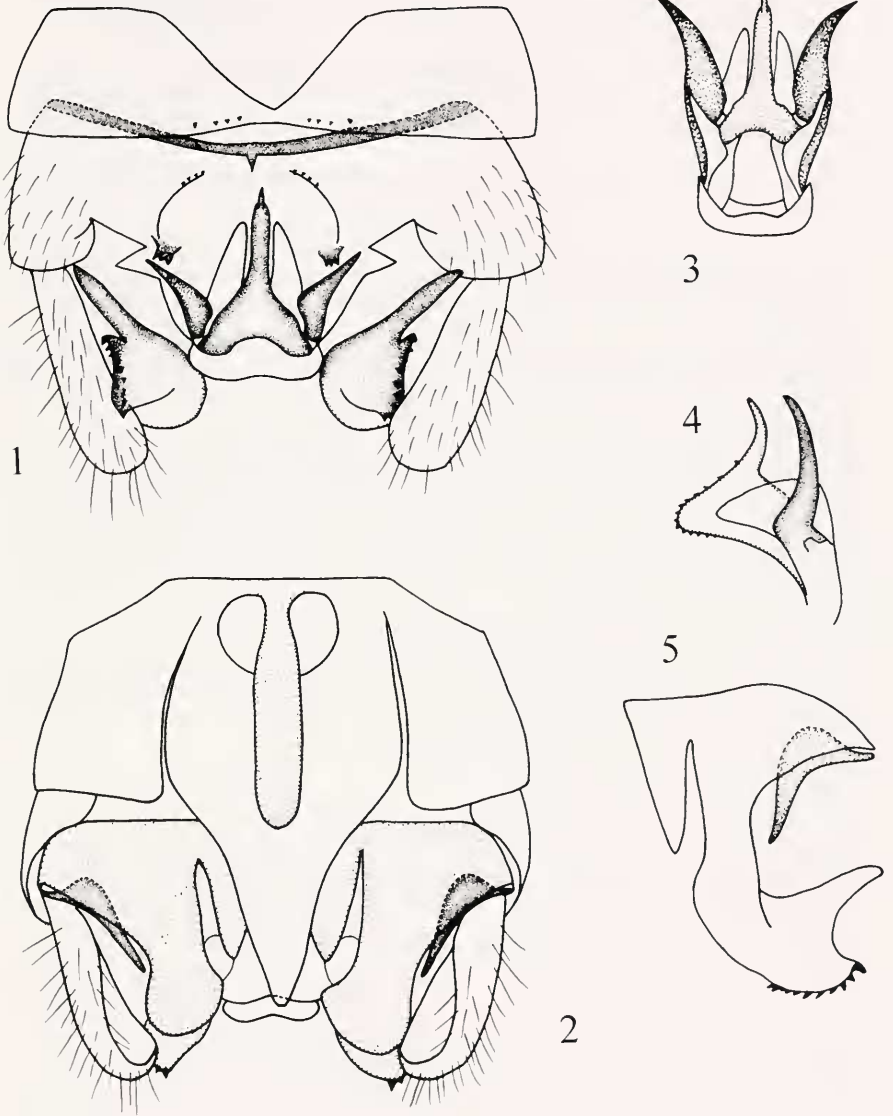
Head dark brown; antennae dark brown; mouthparts dark brown. Thorax dark brown; pronotum uniformly dark brown. Wings hyaline, tinged with grayish. Legs brown, except femora brownish yellow to dark brownish yellow and tibiae with dark brown basal portion. Abdomen brownish; hypopygium including cerci dark brown; hairs on abdomen mostly pale.

Terminalia (Figs. 1-5): Tergite 9 weakly sclerotized, rather constricted medially, with large triangular mid-anterior incision and weak mid-posterior incision, and with two groups of several black tiny spines at mid-posterior margin. Sternite 9 with slender vesicle; subgenital plate rather wide basally, then distinctly tapering toward tip. Tergite 10 weakly sclerotized except basal margin distinctly sclerotized, with a rather large and shallow median concavity bearing several tiny black spines closely located along anterolateral margin and a large black spine with 3 tiny spines at mid-lateral margin. Cercus slightly sclerotized, long and nearly cylindrical. Epiproct with a pair of large anterolateral spines that curved outward and a sharp apical process extended from its ventral sclerite. Paraproct divided into three lobes: outer lobe distinctly sclerotized, much shorter than median lobe, distinctly curved and finger-like; median lobe weakly sclerotized, well developed, apically distinctly sclerotized, strongly curved upward and forward, with rather wide and furcated tip, and with one

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Figures 1-5. *Amphinemura guangdongensis* sp nov., male. 1, genitalia, dorsal view; 2 genitalia, ventral view; 3, epiproct, posterior view; 4, epiproct, lateral view; 5, paraproct.

row of black tiny spines along dorsal ridge; inner lobe weakly sclerotized, nearly as long as outer lobe, more or less straight, with acute tip.

Female: Unknown.

Type Data: Holotype, male, Guangdong, Ruyuan, Nanling National Natural Reserve, 2003. III. 25, Ding Yang. Paratypes: 1 male, Guangdong, Yingde, Shimentai National Forest Garden, 2003. III. 29, Ding Yang; 9 males, Zhejiang, Qingyuan, Baishanzu National Nature Reserve (1300 m), 1994. IV. 18, Hong Wu.

Etymology: The species is named after its type locality, Guangdong.

DISCUSSION

The new species have distinctively sclerotized processes on the epiproct. This feature can be found also in some Chinese species, e.g., *A. sinensis* (Wu, 1926), *A. chui* (Wu, 1935), *A. fleurdelia* (Wu, 1949), and *A. trifurcata* (Wu, 1949). They would be related to each other, but *A. fleurdelia* can be separated from the other four species in having the slender ventral sclerite on epiproct. The new species is closely related to *A. sinensis* in the ventral sclerite on epiproct projected forward apically in the lateral view while the ventral sclerite on epiproct is truncate apically in the lateral view in *A. trifurcata* and *A. chui*, but can be distinguished from *A. sinensis* by the ventral sclerite with long dorsal process curved forward. In *A. sinensis*, the dorsal process of the ventral sclerite is short and curved upward.

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